

REMARKS

Claim 1 is amended herein. Claims 1-9 and 24-27 remain pending in the captioned case. Reconsideration and further examination of the presently claimed application are respectfully requested.

Section 112 Rejections

Claims 1-9 and 24-27 are rejected under 35 U.S.C. § 112, second paragraph, as being incomplete. In particular, claim 1 was rejected as “omitting essential steps” (Office Action — pg. 2). Claims 2-9 and 24-27 were rejected for being dependent on a rejected base claim. To expedite prosecution, claim 1 is amended in a manner believed to obviate this rejection. Accordingly, removal of this rejection is respectfully requested.

Section 103 Rejection

Claims 1-9 and 24-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,411,261 to Lilly (hereinafter “Lilly”) in view of U.S. Patent No. 6,542,131 to Haapanen (hereinafter “Haapanen”). To establish a case of *prima facie* obviousness of a claimed invention, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Second, there must be a reasonable expectation of success. As stated in MPEP 2143.01, the fact that references can be hypothetically combined or modified is not sufficient to establish a *prima facie* case of obviousness. See *In re Mills*, 916 F.2d. 680 (Fed. Cir. 1990). Finally, the prior art references must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d. 981 (CCPA 1974); MPEP 2143.03. Specifically, “all words in a claim must be considered when judging the patentability of that claim against the prior art.” *In re Wilson* 424 F.2d., 1382 (CCPA 1970).

Furthermore, in response to the recent U.S. Supreme Court decision in *KSR Int'l Co. v. Teleflex, Inc.* (U.S. 2007), new guidelines were set forth for examining obviousness under 35 U.S.C. § 103. The U.S. Supreme Court reaffirmed the *Graham* factors and, while not totally rejecting the “teachings, suggestion, or motivation” test, the Court appears to now require higher scrutiny on the part of the U.S. Patent & Trademark Office. In accordance with the recently submitted guidelines, it is “now necessary to identify the reason” why a person of ordinary skill in the art would have combined the prior art elements, or at least describe the pertinence of the prior art elements set forth in the cited disclosure, in the manner presently claimed. Moreover, even if combined, the *Graham* factors require that a determination of the differences between the combined prior art and the claims at issue is needed. Using these standards, Applicants contend that the Office Action fails to note substantial differences between the combined references and the claims at issue. Some distinctive features of the presently pending claims are set forth in more detail below.

Lilly and Haapanen cannot be combined without destroying the intended purpose of each reference teachings. Lilly describes different embodiments of an antenna or an artificial magnetic conductor (e.g., AMC 100, 400, 500, 600, etc.) (Lilly — col. 3, lines 51-55; Figs. 1, 2A, 2B, 4A, 4B, 5, 6). As an antenna that is connected to an electronic device, such as a “wireless communication device,” the various embodiments of AMC are used to resonate the desired frequency associated with the electronic device (Lilly — col. 3, lines 51-57). Accordingly, the planar element 100, 300, 400, 500 etc. of Lilly consists of posts and conductive shapes formed on a substrate as part of the overall antenna element. The antenna element resonates at the frequency of the wireless communication device, and has nothing whatsoever to do with the claimed apparatus that is configured separate and apart from the claimed pair of antennas, as described in present claim 1.

On the other hand, Haapanen describes an apparatus 5 separate and apart from antennas 1 and 2 (Haapanen — Fig. 1). However, the apparatus or suppression element 5 of Haapanen purposely resonates at a frequency “tuned to the frequency of 900 MHz” that is not the carrier frequency of the signal transmitted by the antenna (Haapanen — col. 2, lines 32-35). It is

imperative in Haapanen that the omni-directional radiating strip 5 be at a frequency separate and apart from the frequency of the antennas so that “strip 5 does not interfere with the operation of any one of the antennas” (Haapanen — col. 2, lines 38-40).

Thus, Lilly describes a resonating antenna whereas Haapanen describes a suppression strip that is separate and apart from the antennas, yet resonating at a frequency that is not the carrier frequency so as not to interfere with the frequency of the antennas. Present claim 1 describes a methodology of resonating each of the resonant circuit elements of the apparatus at a carrier frequency of the signal transmitted by one of the pair of antennas. This feature is impossible in Haapanen who teaches that the strip 5 must be tuned at frequency of 900 MHz and that this tuned frequency of strip 5 is separate and apart from the carrier frequency of the antenna. On the other hand, Lilly has nothing whatsoever to do with a suppression strip or any apparatus that is separate and apart from the antenna. If a skilled artisan attempted to combine Lilly with Haapanen, the combination would yield a pair of antennas as taught by Lilly with a suppression strip as taught by Haapanen between the pair of antennas. As taught by Haapanen, the suppression strip would be tuned at a 900 MHz frequency that is separate and apart from the carrier frequency of the signal transmitted by one of the pair of antennas. Therefore, the intent of Lilly would be destroyed since Lilly teaches that the antennas and wireless communication device resonate at the same frequency. Therefore, the combination of Lilly and Haapanen is improper.

Even if combined, Lilly and Haapanen fail to form an apparatus between a pair of antennas, with said apparatus having a length extending in a plane parallel to a plane that is coplanar with the planar portions of the pair of antennas, and extends a spaced distance from one antenna toward the other antenna substantially equal to one-half a wavelength of the carrier frequency.. As described in claim 1, the claimed apparatus extends in a plane parallel to a plane that is coplanar with the planar portions of the pair of antennas. Present claim 1 further describes the apparatus extending a spaced distance from one antenna toward the other antenna substantially equal to one-half a wavelength of the carrier frequency. The amendments to claim 1 are supported by the specification, e.g., Figs. 2 and 6 and the corresponding description. The

specification describes the planar portions of antennas 210/220 that are coplanar with a plane formed by the elongated apparatus 270 (Specification — pg. 17, line 30 — pg. 21, line 8; pg. 28, line 20 — pg. 30, line 27; Figs. 2, 6). The length of apparatus 270 that extends in a plane parallel to the plane that is coplanar with the planar portions of the pair of antennas is the subject of interest and is patentably distinguishable from that of Lilly and Haapanen.

As is noted above, Lilly fails to teach an apparatus between a pair of antennas, much less an apparatus having a length extending in a plane parallel to the plane that is coplanar with the planar portions of the pair of antennas. Lilly describes only an antenna, but no apparatus in the configuration as claimed. The shortcomings of Lilly are compounded in Haapanen. Haapanen teaches that the length of suppression strip 5 is “transverse to the connecting line between the antennas” (Haapanen — col. 2, lines 54-55). The length of strip 5 is at $1/4$ the wavelength or multiple of $1/4$ the wavelength, yet extends not in a plane parallel to the plane that is coplanar with the planar portions of the pair of antennas but, instead, is in a plane that is transverse or perpendicular to such plane (Haapanen — col. 2, lines 23-31, 54-55; Fig. 1). To reconfigure strip 5 to be parallel would destroy the intent of Haapanen which is to radiate omni-directionally in a plane transverse to the direction of radiation of the antennas. Accordingly, the improper combination of Lilly and Haapanen still fails to teach or render obvious the limitations of present claim 1.

For at least the reasons set forth above, claim 1 and claims dependent therefrom are patentably distinct over the cited art. Accordingly, removal of this rejection is respectfully requested.

CONCLUSION

The present amendment and response is believed to be a complete response to the issues raised in the Office Action mailed November 24, 2010. In view of the amendments and remarks herein, Applicants assert that pending claims 1-9 and 24-27 are in condition for

allowance. If the Examiner has any questions, comments, or suggestions, the undersigned attorney earnestly requests a telephone conference.

No fees are required for filing this amendment; however, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment, to Daffer McDaniel, LLP Deposit Account No. 50-3268.

Respectfully submitted,

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